9. MASTER CLAMP & LOADING SECTIONS

CONTENTS

[Theory of Operation]

1. Master Clamping System IX-1
2. Master On-Drum Loading System IX-2
3. Master Post-Cutting Feeding System IX-6
4. Master Cutting System IX-7
5. Master Setting System IX-8
6. Master Free Feeding System IX-12
7. Post-Master Miscut Operation IX-14

[Removal & Assembly]

1. Clamp Unit IX-17
2. Clamp Motor IX-18
3. Clamp Solenoid IX-18
4. Master Loading Sensor IX-19
5. Cutter Motor Unit IX-20
6. Cutter Unit IX-21
7. Master Positioning Sensor IX-22
8. Master End/Det. Sensor IX-23
9. Master Loading Unit Sw IX-23
10. Master End Sensor (Receive) IX-24
11. Loading Fan IX-24
12. Cutter Unit <GR> IX-25
13. Loading Fan <GR3750> IX-26
14. Loading Fan <GR2750/1750/1700> IX-26

[Adjustment]

1. Cutter Blade Stop Position IX-27
2. Position of 0°/180° Angular Sensors IX-28

9. Master Clamp & Loading Sections

[Adjustment]

1. Cutter Blade Stop Position

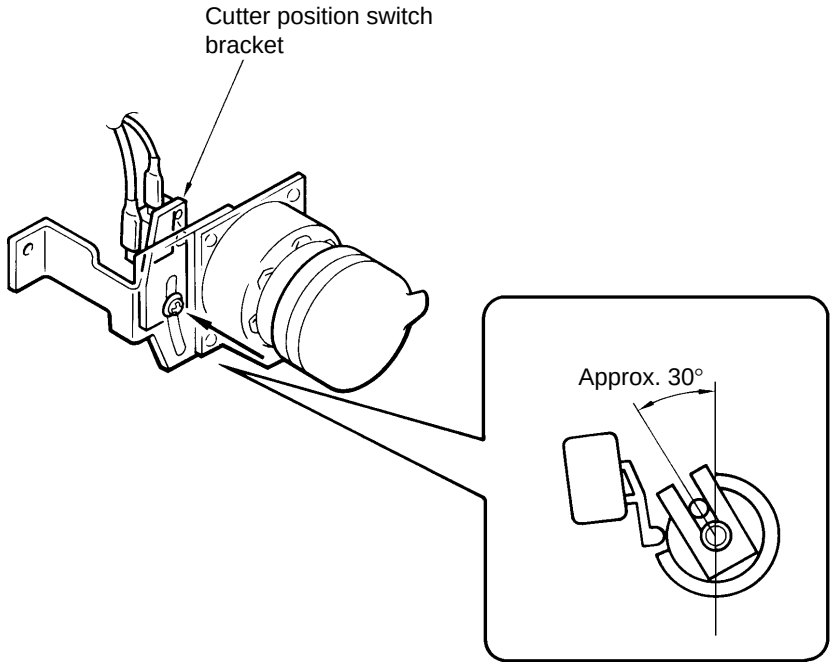
1. Turn OFF the power and remove the Back cover.
2. Wind the master material back on the master roll.
3. Activate the Cutter motor using Test mode **No.112**.
4. When the motor stops, confirm that the slit of the Cutter joint B points up approx. 30 degrees to the left of center when inspecting from the rear of the machine, as shown on the illustration below.
5. If not, loosen the mounting screw on the Cutter position switch bracket and change the position of the switch to change the stop position of the Cutter joint B.

- Precautions in Adjustment -

- Wind the master material back on the master roll before activating the Cutter motor in Test mode.

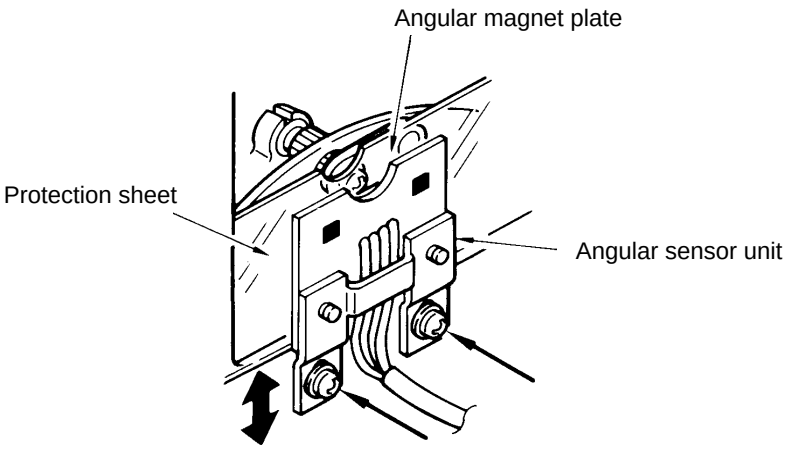
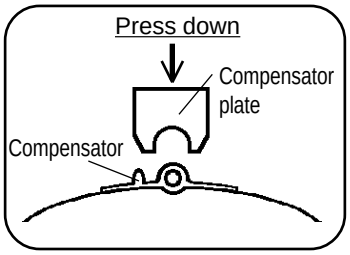
- Result of Misadjustment -

- If the Cutter position switch is not set correctly;
  the upper Cutter blade will be off the home position when idling and makes contact with the proceeding master, causing wrinkles on the master when loading it onto the Drum.
  In worst case, the path of the master will be blocked and cause master mis-feeds.
  As a result, error code **[E 22]** is displayed to interrupt machine operation.



2. Position of 0°/180° Angular Sensors

1. Check if LED **(DRM0)** is lit on the System PCB when the Clamp plate is closed and LED **(DRM1)** is lit when it is open.
   [Note]
   Before checking LEDs, always confirm that the Compensator plate engages with the Compensator by manually pushing down on the Clamp unit.
   If not, adjust the position of the Angular sensor unit as described below.
2. Open and close the Clamp plate by hand and check that both, the Angular magnet plate and Clamp plate move smoothly and are always aligned. If not, loosen the mounting screw on the Angular magnet plate and change its position to align them.
   Close the Clamp plate and slide the Drum back into the machine.
3. Check that the Drum is at the Home position A, turn OFF the power and remove the Back cover.
4. Remove two mounting screws on the Angular sensor unit, disconnect the connector and remove the sensor.
5. Manually push the Clamp unit down until the Compensator plate is engaged with the Compensator and release the unit slowly.
   Remove the Clamp unit, referring to the page IX-17.
6. Mark the positions of the 0° Angular magnet and the mounting screw on the Angular magnet plate on the transparent Protection sheet with a felt marker.
7. Turn ON the power and pull out the Drum from the machine.
   Open the Clamp plate and slide the Drum back into the machine.
8. Position the Drum to match the mounting screw on the Angular magnet plate with the corresponding mark on the Protection sheet and mark the position of the 180° Angular magnet on the Protection sheet with a felt marker.
9. Pull out the Drum from the machine and turn OFF the power.
   Position the Angular sensor unit to match the respective Hall ICs with the corresponding marks on the Protection sheet while inspecting from the front and secure it with two mounting screws.
10. Connect the Angular sensor connector and attach the Clamp unit.
11. Turn ON the power, slide the Drum back into the machine and check LEDs on the System PCB as described in Step 1.

- Result of Misadjustment -

- If the Angular sensors are off position and can't detect the position (status) of the Clamp plate; the machine will assume that a clamp error has occurred and indicate error code **[E 03]**.
- If magnetism is detected before the Clamp plate is completely opened;
  the Drum will start to rotate before the Clamp plate is completely opened, causing the Clamp plate to be stuck at the entrance of the Master removal unit.
  As a result, the Drum will be locked and the error code **[E 01]** will be indicated.